

**GILA RIVER BASIN**

**09447800 BONITA CREEK NEAR MORENCI, AZ**

**LOCATION**--Lat 32°57'20", long 109°31'50", in SE1/4NW1/4 sec. 36, T.5 S., R.27 E., Graham County, Hydrologic Unit 15040005, on left bank 2 mi upstream from intake of city of Safford water supply, 6.3 mi upstream from mouth, and 12.8 mi southwest of Morenci.

**DRAINAGE AREA**--302 mi<sup>2</sup>.

**PERIOD OF RECORD**--Aug. 1981 to current year.

**GAGE**--Water-stage recorder. Elevation of gage is 3,500 ft above sea level, from topographic map. Two crest-stage gages 440 ft upstream on right and left banks.

**REMARKS**--No estimated daily discharges. Records fair.

**EXTREMES FOR PERIOD OF RECORD**--Maximum discharge, 19,500 ft<sup>3</sup>/s Jan. 18, 1993, gage height, 16.5 ft, from slope-area measurement of peak flow; minimum daily, 0.66 ft<sup>3</sup>/s Aug. 31, 1988.

**EXTREMES OUTSIDE PERIOD OF RECORD**--Flood of Dec. 20, 1972, 10,000 ft<sup>3</sup>/s, from slope-area measurement made by city of Safford at site about 2 mi downstream. Flood of June 27, 1981, 1,340 ft<sup>3</sup>/s, from slope-area measurement at present site, gage height, 5.6 ft, from floodmark.

**EXTREMES FOR CURRENT YEAR**--Peak discharges greater than base discharge of 300 ft<sup>3</sup>/s and (or) maximum (\*):

| Date         | Time | Discharge (ft <sup>3</sup> /s) | Gage height (ft) |
|--------------|------|--------------------------------|------------------|
| Mar. 21..... | 1530 | *34                            | *5.53            |

Minimum daily discharge, 0.75 ft<sup>3</sup>/s, Sept. 24.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003  
DAILY MEAN VALUES

| DAY   | OCT  | NOV  | DEC  | JAN  | FEB   | MAR   | APR  | MAY   | JUN  | JUL  | AUG  | SEP   |
|-------|------|------|------|------|-------|-------|------|-------|------|------|------|-------|
| 1     | 2.5  | 3.0  | 2.6  | 3.0  | 4.4   | 2.8   | 3.6  | 3.9   | 2.6  | 2.1  | 1.9  | 1.5   |
| 2     | 2.5  | 2.9  | 2.7  | 3.0  | 4.5   | 3.0   | 3.3  | 3.9   | 2.6  | 2.1  | 1.9  | 1.5   |
| 3     | 2.5  | 2.8  | 2.7  | 3.0  | 4.4   | 3.0   | 3.2  | 3.9   | 2.5  | 2.1  | 1.8  | 1.4   |
| 4     | 2.5  | 2.8  | 2.7  | 3.0  | 4.4   | 3.0   | 3.2  | 3.8   | 2.5  | 2.1  | 1.8  | 1.4   |
| 5     | 2.5  | 2.8  | 2.8  | 3.0  | 4.4   | 3.1   | 3.2  | 3.8   | 2.5  | 2.1  | 1.8  | 1.4   |
| 6     | 2.5  | 2.5  | 2.8  | 3.0  | 4.2   | 3.2   | 3.0  | 3.8   | 2.4  | 2.1  | 1.8  | 1.4   |
| 7     | 2.7  | 2.5  | 2.7  | 3.1  | 4.2   | 3.4   | 3.0  | 3.7   | 2.4  | 2.1  | 1.8  | 1.3   |
| 8     | 2.5  | 2.5  | 2.8  | 3.1  | 4.3   | 3.7   | 2.9  | 3.7   | 2.4  | 2.1  | 1.8  | 1.3   |
| 9     | 2.4  | 2.5  | 2.8  | 3.1  | 3.9   | 4.4   | 2.9  | 3.8   | 2.4  | 2.0  | 1.8  | 1.3   |
| 10    | 2.4  | 2.6  | 2.7  | 3.1  | 4.0   | 5.1   | 2.9  | 3.9   | 2.3  | 2.0  | 1.8  | 1.3   |
| 11    | 2.6  | 2.6  | 2.7  | 3.1  | 3.9   | 5.8   | 2.8  | 3.8   | 2.3  | 2.0  | 1.8  | 1.3   |
| 12    | 2.6  | 2.6  | 2.8  | 3.1  | 3.8   | 6.2   | 2.7  | 3.8   | 2.3  | 2.0  | 1.8  | 1.3   |
| 13    | 2.7  | 2.5  | 2.8  | 3.1  | 3.9   | 6.0   | 2.6  | 3.6   | 2.3  | 2.0  | 1.8  | 1.2   |
| 14    | 2.7  | 2.5  | 2.8  | 3.1  | 3.9   | 5.7   | 2.6  | 3.5   | 2.3  | 2.0  | 1.8  | 1.2   |
| 15    | 2.8  | 2.6  | 2.8  | 3.1  | 3.7   | 5.5   | 2.8  | 3.5   | 2.2  | 2.0  | 1.8  | 1.2   |
| 16    | 2.8  | 2.5  | 2.8  | 3.1  | 3.6   | 5.8   | 2.9  | 3.5   | 2.2  | 2.0  | 1.8  | 1.1   |
| 17    | 2.8  | 2.5  | 2.9  | 3.2  | 3.6   | 6.1   | 2.8  | 3.4   | 2.2  | 2.0  | 1.7  | 1.1   |
| 18    | 2.9  | 2.5  | 2.9  | 3.2  | 3.5   | 12    | 2.9  | 3.4   | 2.2  | 2.0  | 1.7  | 1.1   |
| 19    | 2.8  | 2.4  | 2.8  | 3.2  | 3.5   | 16    | 2.9  | 3.3   | 2.2  | 2.0  | 1.7  | 1.0   |
| 20    | 2.8  | 2.4  | 2.9  | 3.2  | 3.6   | 20    | 2.9  | 3.2   | 2.2  | 2.0  | 1.7  | 1.0   |
| 21    | 2.9  | 2.4  | 3.0  | 3.2  | 3.4   | 26    | 2.9  | 3.1   | 2.2  | 2.0  | e1.8 | 0.98  |
| 22    | 2.8  | 2.5  | 3.0  | 3.2  | 3.5   | 29    | 2.9  | 3.0   | 2.2  | 2.0  | e1.7 | 0.95  |
| 23    | 2.9  | 2.5  | 3.0  | 3.2  | 3.4   | 21    | 3.0  | 2.9   | 2.2  | 2.0  | e1.6 | 0.91  |
| 24    | 3.0  | 2.5  | 2.9  | 3.2  | 3.2   | 15    | 3.1  | 2.8   | 2.2  | 2.0  | 1.6  | 0.75  |
| 25    | 3.0  | 2.5  | 3.0  | 3.1  | 3.1   | 11    | 3.1  | 2.8   | 2.2  | 1.9  | 1.7  | 1.0   |
| 26    | 2.9  | 2.6  | 3.0  | 3.1  | 3.0   | 6.9   | 3.1  | 2.8   | 2.1  | 1.9  | 1.7  | 1.2   |
| 27    | 3.0  | 2.7  | 3.0  | 3.1  | 2.8   | 5.4   | 3.2  | 2.8   | 2.2  | 1.9  | 1.6  | 1.2   |
| 28    | 3.0  | 2.6  | 3.0  | 3.1  | 2.8   | 4.8   | 3.2  | 2.8   | 2.2  | 1.9  | 1.6  | 1.2   |
| 29    | 3.1  | 2.6  | 3.0  | 3.1  | ---   | 4.2   | 3.5  | 2.7   | 2.1  | 1.9  | 1.6  | 1.3   |
| 30    | 3.0  | 2.6  | 3.0  | 3.1  | ---   | 4.0   | 3.6  | 2.8   | 2.2  | 1.9  | 1.5  | 1.2   |
| 31    | 3.0  | ---  | 3.0  | 4.1  | ---   | 3.8   | ---  | 2.6   | ---  | 1.9  | 1.5  | ---   |
| TOTAL | 85.1 | 77.5 | 88.4 | 97.3 | 104.9 | 254.9 | 90.7 | 104.3 | 68.8 | 62.1 | 53.7 | 35.99 |
| MEAN  | 2.75 | 2.58 | 2.85 | 3.14 | 3.75  | 8.22  | 3.02 | 3.36  | 2.29 | 2.00 | 1.73 | 1.20  |
| MAX   | 3.1  | 3.0  | 3.0  | 4.1  | 4.5   | 29    | 3.6  | 3.9   | 2.6  | 2.1  | 1.9  | 1.5   |
| MIN   | 2.4  | 2.4  | 2.6  | 3.0  | 2.8   | 2.8   | 2.6  | 2.6   | 2.1  | 1.9  | 1.5  | 0.75  |
| AC-FT | 169  | 154  | 175  | 193  | 208   | 506   | 180  | 207   | 136  | 123  | 107  | 71    |
| CFSM  | 0.01 | 0.01 | 0.01 | 0.01 | 0.01  | 0.03  | 0.01 | 0.01  | 0.01 | 0.01 | 0.01 | 0.00  |
| IN.   | 0.01 | 0.01 | 0.01 | 0.01 | 0.01  | 0.03  | 0.01 | 0.01  | 0.01 | 0.01 | 0.01 | 0.00  |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 2003, BY WATER YEAR (WY)

|      | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
| MEAN | 14.0 | 6.59 | 9.47 | 50.1 | 25.9 | 13.5 | 4.98 | 3.91 | 3.16 | 6.85 | 7.63 | 7.50 |
| MAX  | 176  | 21.7 | 29.6 | 769  | 165  | 53.6 | 10.7 | 6.33 | 5.86 | 44.5 | 14.6 | 28.6 |
| (WY) | 1984 | 1995 | 1983 | 1993 | 1993 | 1995 | 1998 | 1993 | 1995 | 1999 | 2000 | 1996 |
| MIN  | 1.52 | 1.86 | 2.85 | 3.14 | 3.75 | 2.74 | 2.00 | 2.10 | 1.32 | 1.93 | 1.73 | 1.20 |
| (WY) | 1992 | 1992 | 2003 | 2003 | 2003 | 2001 | 1991 | 1991 | 1982 | 2002 | 2003 | 2003 |

SUMMARY STATISTICS

|                          | FOR 2002 CALENDAR YEAR | FOR 2003 WATER YEAR | WATER YEARS 1982 - 2003 |
|--------------------------|------------------------|---------------------|-------------------------|
| ANNUAL TOTAL             | 1071.5                 | 1123.69             |                         |
| ANNUAL MEAN              | 2.94                   | 3.08                | 12.8                    |
| HIGHEST ANNUAL MEAN      |                        |                     | 83.7                    |
| LOWEST ANNUAL MEAN       |                        |                     | 3.08                    |
| HIGHEST DAILY MEAN       | 5.0                    | 29                  | 10200                   |
| LOWEST DAILY MEAN        | 1.7                    | 0.75                | 0.66                    |
| ANNUAL SEVEN-DAY MINIMUM | 1.7                    | 0.94                | 0.76                    |
| ANNUAL RUNOFF (AC-FT)    | 2130                   | 2230                | 9250                    |
| ANNUAL RUNOFF (CFSM)     | 0.010                  | 0.010               | 0.042                   |
| ANNUAL RUNOFF (INCHES)   | 0.13                   | 0.14                | 0.57                    |
| 10 PERCENT EXCEEDS       | 4.1                    | 3.9                 | 8.9                     |
| 50 PERCENT EXCEEDS       | 2.8                    | 2.8                 | 4.5                     |
| 90 PERCENT EXCEEDS       | 2.0                    | 1.6                 | 2.4                     |

e Estimated